STREAM ID S-G20	STREAM NAME Poplar Camp Creek			
LAT 37.017404 LONG -79.759961	DATE 04/03/2015			
CLIENT MVP	PROJECT NAME MVP			
INVESTIGATORS G. Stevens, A. Rodrian, S. Kelly				
FLOW REGIME Perennial ✓ Intermittent — Ephemeral —	WATER TYPE TNW — RPW ✓ NRPW —			

			leasurements		Stream Erosion	
		'	k Width: 10 ft		NoneModerate	Heavy
		Top of Ban	J	_	Artificial, Modified or Char	nnelized
		LB <u>3.0</u>		<u>ft</u>	Yes No	
CHANNEL FE	ATURES	· ·	h: 1.00 ft		Dam PresentYes _	✓ No
		Water Widt				<u> </u>
			Mark: <u>8.0 ft</u>		Sinuosity <u>v</u> Low	Medium High
		Flow Direct	ion: Northeast		Gradient	
					<u>✓</u> Flat Moderate (2 ft/100 ft)	
		Water Pres			Proportion of Reach Repre	esented by Stream
			r, stream bed dry bed moist		Morphology Types Riffle 40 % Run 30	%
		Standing			Pool 30 %	,,
FLOW CHARACTER	ISTICS	Flowing	water		Total Cities	
Velocity				Turbidity <u>✓</u> ClearSlightly	turbidTurbid	
			Moderate		OpaqueStained	
		Slow			Other	
INOR		STRATE CO		_	RGANIC SUBSTRATE COM	
	(snould	add up to 100			does not necessarily add u	
Substrate Type	Diame	eter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock			20	Detritus	sticks, wood, coarse	
Boulder		mm (10")	20	Detritus	plant materials (CPOM)	25
Cobble		m (2.5"-10") 10		Muck-Mud	black, very fine organic	
Gravel		1 (0.1"-2.5") 20			(FPOM)	
Sand Silt		nm (gritty) 0.06 mm	20	Marl	grey, shell fragments	
Clay		mm (slick)	10	IVIAII	grey, shell fragments	
Clay	₹ 0.004			duse	Indicate the dominant type	(Check one)
			Predominant Surrounding Landuse ✓ Forest Commercial		<u>✓</u> Trees Shrub	
		Field/Pa			Grasses Herba	ceous
WATERSHED FEATURES Canopy Parti		Agricultural Residential		iai	Floodplain Width	
					Wide > 30ft Moderate 15-30ft	
		Canopy Co		adad	✓ Narrow <16ft	
		Shaded	· <u> </u>	aueu	Wetland PresentYes Wetland ID	<u>✓</u> No
		Indicate th	e dominant type and	d record the	dominant species present	
AQUATIC VE	GETATION	Rooted	emergent	Rooted subm	ergentRooted float	ingFree floating
		Floating	g algae	Attached alga	e	

l I	Fish Information listed on this form represents the data collected in 2015. The stream was revisited on 11/10/2019. The presence of a stream channel and OHWM was confirmed

Stream ID S-G20



Photograph Direction SSW

Date: 04/03/2015

Comments: 2015 stream identification.



Photograph Direction NNE

Date: 11/10/2019

STREAM ID S-G18	STREAM NAME UNT to Blackwater River			
LAT 37.009256 LONG -79.75418	DATE 04/03/2015			
CLIENT MVP	PROJECT NAME MVP			
INVESTIGATORS G. Stevens, A. Rodrian, S. Kelly				
FLOW REGIME Perennial — Intermittent ✓ Ephemeral —	WATER TYPE TNW — RPW ✓ NRPW —			

		Estimate N Top of Bank	leasurements k Width: 2 ft		Stream ErosionNoneModerate	<u>✓</u> Heavy
		Top of Bank	k Height:		Artificial, Modified or Chan	nelized
		LB 2.0	ft RB <u>2.0</u>	<u>ft</u>	Yes ✓ No	inchized
CHANNEL FE	ATURES	Water Dept Water Widt	h: <u>2.00 in</u> h: 8.0 in		Dam PresentYes	<u>∕</u> No
			Mark: 2.0 ft		Sinuosity Low	Medium 👱 High
			ion: Southwest		Cuadiant	
		1 low bileon			Gradient Flat _✓ Moderate	Severe
						(10 ft/100 ft)
FLOW CHARACTER	ISTICS		r, stream bed dry bed moist g water		Proportion of Reach Repre Morphology Types Riffle 10 % Run 70 Pool 20 %	sented by Stream
		Valasitu			Turbidity ✓ ClearSlightly t	turbidTurbid
		Velocity Fast	Moderate		OpaqueStained	
		✓ Slow			Other	
INOR		STRATE CO		_	RGANIC SUBSTRATE COM	-
Substrate Type	Diame	eter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock				Detritus	sticks, wood, coarse	
Boulder	> 256	mm (10")		Detrituo	plant materials (CPOM)	65
Cobble	64-256 m	m (2.5"-10")	10	Muck-Mud	black, very fine organic	
Gravel	2-64 mm	า (0.1"-2.5")	30		(FPOM)	
Sand		mm (gritty) 55				
Silt		0.06 mm		Marl	grey, shell fragments	
Clay	< 0.004	mm (slick)	5			
		Commer	cial	Indicate the dominant type ✓ Trees Shrub Grasses Herba	S	
WATERSHED FEATURES Agricult Other: Canopy Co		ural Resident		Floodplain Width Wide > 30ft Narrow <16ft Woder		
Partly o		penPartly sh Open		Wetland PresentYes Wetland ID	<u>~</u> No	
AQUATIC VE	GETATION		emergent	d record the or Rooted submark Attached alga		ingFree floating
				auuigu	· -	
		Information	listed on this form re	presents the c	data collected in 2015. The str	eam was revisited

	Information listed on this form represents the data collected in 2015. The stream was revisited on 11/11/2019. The presence of a stream channel and OHWM was confirmed
MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	

Stream ID S-G18



Photograph Direction ENE

Date: 04/03/2015

Comments: 2015 stream identification.



Photograph Direction WSW

Date: 11/11/2019

STREAM ID S-G17	STREAM NAME UNT to Blackwater River			
LAT 37.005499 LONG -79.752637	DATE 04/03/2015			
CLIENT MVP	PROJECT NAME MVP			
INVESTIGATORS G. Stevens, A. Rodrian, S. Kelly				
FLOW REGIME Perennial Intermittent Ephemeral 	WATER TYPE TNW — RPW — NRPW <u>✓</u>			

		Estimate N	leasurements		Stream Erosion	
		Top of Ban	k Width: 5 ft		<u>✓</u> NoneModerate	Heavy
		Top of Ban	k Height:		Artificial, Modified or Chan	nolizod
		LB 4.0	in RB <u>4.0</u>	<u>in</u>	Yes ✓ No	menzeu
CHANNEL FE	ATUDES	Water Dept	h: 0.00 in			
CHANNEL FE	AIUKES	Water Widt			Dam PresentYes	<u>∕</u> No
		High Water	Mark: 3.0 in		Sinuosity <u>v</u> Low	Medium High
		Flow Direct			Gradient	
		2				Severe
						(10 ft/100 ft)
		Water Pres			Proportion of Reach Repre	sented by Stream
		Stream b	r, stream bed dry		Morphology Types Riffle % Run	%
		Standing			Pool %	,,
FLOW CHARACTER	ISTICS	Flowing	•			
01344010121					Turbidity ClearSlightly to	turbidTurbid
		Velocity Fast	Moderate		Opaque Stained	
		✓ Slow	Moderate		Other No water present	
INOR	GANIC SUB	STRATE CO	MPONENTS	0	RGANIC SUBSTRATE COM	IPONENTS
	(should	add up to 100	0%)	(0	does not necessarily add up	p to 100%)
Substrate Type	Diame	eter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock				Detritus	sticks, wood, coarse	
Boulder	> 256	mm (10")	5	Detritus	plant materials (CPOM)	40
Cobble	64-256 m	ım (2.5"-10")	15	Muck-Mud	black, very fine organic	
Gravel	2-64 mm	n (0.1"-2.5") 25			(FPOM)	
Sand		nm (gritty)	25			
Silt		0.06 mm		Marl	grey, shell fragments	
Clay	< 0.004	mm (slick)	30			
		Predomina Forest	ant Surrounding Lan Commer		Indicate the dominant type ✓ Trees Shrub	
		Field/Pa			Grasses Herba	
		Agricult	ural Resident	tial		
WATERSHED FEATURES		Other:			Floodplain Width Wide > 30ft Moder	ate 15-30ft
		Canopy Co	war		Narrow <16ft	
		Partly of		aded		
		Shaded	Open		Wetland PresentYes Wetland ID	<u>✓</u> No
					dominant species present	_
AQUATIC VE	GETATION			Rooted subme		ingFree floating
		Floating	g algae	Attached alga	e 	

	Dry
MACROINVERTEBRATES OR OTHER	Information listed on this form represents the data collected in 2015. The stream was revisited on 11/11/2019. The presence of a stream channel and OHWM was confirmed
WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	



Photograph Direction West

Comments: 2015 stream identification.



Photograph Direction West

Date: 11/11/2019

STREAM ID S-E18	STREAM NAME UNT to Blackwater River
LAT 37.000999 LONG -79.747594	DATE 04/03/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS S Ryan, A Mengel, L Sextor	i e
FLOW REGIME Perennial ✓ Intermittent Ephemeral —	WATER TYPE TNW — RPW ✓ NRPW —

Estimate Measurements Top of Bank Width: 7 ft None Moderate Heavy							
Top of Bank Height: LB 4.0 ft RB 4.0 ft Water Depth: 2.00 in Water Width: 4.0 ft High Water Mark: 3.0 in Flow Direction: Southeast Water Present No water, stream bed dry Stream bed moist Standing water Flow CHARACTERISTICS Welocity Fast Flat Flow Direction: Standing water Flowing water Velocity Flowing water Velocity Flow Moderate Standing water Flow Direction: Standing water Flow Direction: Southeast Organic Moderate Sinuosity V Low Medium High Sinuosity V Low Medium High Flow Direction: Severe (10.5/100 ft (2 ft/100 ft) (10 ft/100 ft) Proportion of Reach Represented by Stream Morphology Types Riffle 75 % Run 20 % Flowing water Flow Direction: Standing water Velocity Flowing water Velocity Flow Moderate Slow Organic Substrate COMPONENTS (should add up to 100%) Substrate Organic Substrate Components (does not necessarily add up to 100%)							
CHANNEL FEATURES LB 4.0 ft RB 4.0 ft Water Depth: 2.00 in Water Width: 4.0 ft High Water Mark: 3.0 in Flow Direction: Southeast Gradient Constitution of the Work			-			NoneModerate .	neavy
Water Depth: 2.00 in Water Width: 4.0 ft High Water Mark: 3.0 in Flow Direction: Southeast Gradient Flat			•	ŭ		Artificial, Modified or Chan	nelized
Water Width: 4.0 ft High Water Mark: 3.0 in Flow Direction: Southeast Water Present No water, stream bed dry Stream bed moist Standing water Velocity Fast Slow Welocity Fast Slow Nowderate Slow Nowderate Standing water Standing water Velocity Fast Slow Nowderate Slow Nowderate Standing water Standing water Opaque Stained Slow Nowderate Slow Stream Morphology Types Riffle 75 % Run 20 % Flowing water Velocity Fast Slow Slow Nowderate Slow Slow Slow Slow Substrate Nowderate Slow Substrate Substra			LB <u>4.0</u>	ft RB <u>4.0</u>	<u>ft</u>	<u>✓</u> Yes No	
High Water Mark: 3.0 in Flow Direction: Southeast Water Present No water, stream bed dry Stream bed moist Standing water Flow CHARACTERISTICS Welocity Fast Slow INORGANIC SUBSTRATE COMPONENTS (should add up to 100%) Substrate Sinuosity Low Medium High Sinuosity Low Medium High Flow Moderate Severe (0.5/100 ft (2 ft/100 ft) (10 ft/100 ft) Proportion of Reach Represented by Stream Morphology Types Riffle 75 % Run 20 % Pool 5 % Turbidity Clear Opaque Stained Opaque Stained Organic SUBSTRATE COMPONENTS (does not necessarily add up to 100%) Substrate Substrate Sinuosity Low Medium High Flow Moderate Severe (0.5/100 ft (2 ft/100 ft) (10 ft/100 ft) Froportion of Reach Represented by Stream Morphology Types Riffle 75 % Run 20 % Flow Displayed Morphology Types Riffle 75 % Flow Displayed Morphology Types Riffle 75 % Run 20 % Flow Displayed Morphology Types Riffle 75 % Flow Displayed Morphology Types Riffle 75 % Run 20 % Flow Displayed Morphology Types Riffle 75 % Run 20 % Flow Displayed Morphology Types Riffle 75 % Run 20 % Flow Displayed Morphology Types Riffle 75 % Run 20 % Flow Displayed Morphology Types Riffle 75 % Run 20 % Run 20 % Flow Displayed Morphology Types Riffle 75 % Run 20	CHANNEL FEA	TURES	Water Dept	h: 2.00 in		Dam Present ✓ Yes	No
Flow Direction: Southeast GradientFlat _V_ModerateSevere (0.5/100 ft (2 ft/100 ft) (10 ft/100 ft) Water PresentNo water, stream bed dryStream bed moist			Water Widt	h: <u>4.0 ft</u>			
## Proportion of Reach Represented by Stream Morphology Types			High Water	Mark: <u>3.0 in</u>		Sinuosity <u>v</u> Low	Medium High
Water Present No water, stream bed dry Stream bed moist Standing water Flow CHARACTERISTICS Flowing water Velocity Fast Slow INORGANIC SUBSTRATE COMPONENTS (should add up to 100%) Water Present Morphology Types Riffle 75 % Run 20 % Pool 5 % Turbidity Velocity Clear Opaque Stained Organic Substrate ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%) Substrate Observatority Clety Organic Substrate Occurrents O			Flow Direct	ion: Southeast		Gradient	
Water Present							
FLOW CHARACTERISTICS No water, stream bed dry Stream bed moist Riffle 75 % Run 20 %			Water Pres	cont			
FLOW CHARACTERISTICS Stream bed moist Standing water Pool 5 % Run 20 % Pool 5 % Standing water Velocity Clear Stained Slow Other Other INORGANIC SUBSTRATE COMPONENTS (should add up to 100%) Substrate Substrate Substrate Other Substrate Substr						Morphology Types	sented by Stream
FLOW CHARACTERISTICS Flowing water Velocity Fast Slow INORGANIC SUBSTRATE COMPONENTS (should add up to 100%) Substrate Velocity Fast Slow Opaque Stained Other ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%) Substrate Velocity Fast Slow Opaque Stained Other ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%) Substrate Velocity Flowing water Vel						Riffle 75 % Run 20	%
Velocity Fast Moderate Slow INORGANIC SUBSTRATE COMPONENTS (should add up to 100%) Substrate Velocity Fast Moderate Opaque Stained Other ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%) Substrate Substrate Observatority Webstrate Composition in Composition in Organic Substrate Webstrate	FLOW					Pool 5 %	
Fast	CHARACTERIS	STICS	<u>✓</u> Flowing	water		Turbidity	
INORGANIC SUBSTRATE COMPONENTS (should add up to 100%) Substrate Slow							turbidTurbid
INORGANIC SUBSTRATE COMPONENTS (should add up to 100%) Substrate Substrate				✓ Moderate			
(should add up to 100%) (does not necessarily add up to 100%) Substrate Sub			_				
Substrate % Composition in Substrate % Composition in	INORG				_		-
Type Samping Head.				% Composition in	Substrate	1	% Composition in
Bedrock sticks, wood, coarse				- carriprinty i recent		sticks wood coarse	
Boulder > 256 mm (10") 10 Detritus plant materials (CPOM) 20	Boulder	> 256	mm (10")	10	Detritus		20
Cobble 64-256 mm (2.5"-10") 50 Muck-Mud black, very fine organic	Cobble	64-256 m	m (2.5"-10")	50	Muck Mud	black, very fine organic	
Gravel 2-64 mm (0.1"-2.5") 5 (FPOM)	Gravel	2-64 mm	(0.1"-2.5") 5		IVIUCK-IVIUU	(FPOM)	
Sand 0.06-2mm (gritty) 20	Sand	0.06-2n	nm (gritty)	20			
Silt 0.004-0.06 mm Marl grey, shell fragments	Silt	0.004-0	0.06 mm		Marl	grey, shell fragments	
Clay < 0.004 mm (slick) 15	Clay	< 0.004 ı	` ,				
Predominant Surrounding Landuse Indicate the dominant type (Check one)							
	MATEROLIER			ural Resident	tial	Eleadalain Width	
Field/Pasture Industrial Grasses Herbaceous Agricultural Residential	FEATURES Cal		Other:			✓ Wide > 30ft Moder	ate 15-30ft
Field/Pasture Industrial Grasses Herbaceous Agricultural Residential Floodplain Width			Canopy Co	over		Narrow <16ft	
## Field/Pasture Industrial Grasses Herbaceous ### Herbaceous ### Herbaceous ### Herbaceous ### Herbaceous ### Hodge			<u></u> Partly o	penPartly sh	aded	Wetland Present Ves	No
WATERSHED FEATURES Field/Pasture Industrial Grasses Herbaceous Residential Grasses Herbaceous Floodplain Width Wide > 30ft Moderate 15-30ft Narrow <16ft Partly open Partly shaded Water d Propert Alves No.	Shaded		Shaded	Open		Wetland ID	
WATERSHED FEATURES Field/Pasture Industrial Grasses Herbaceous Agricultural Residential Other: Floodplain Width Wide > 30ft Moderate 15-30ft Narrow <16ft Partly open Partly shaded Shaded Open Wetland Present Yes No							
WATERSHED FEATURES Field/Pasture	AQUATIC VEG	ETATION					ingFree floating
WATERSHED FEATURES Field/Pasture Industrial Grasses Herbaceous Residential Grasses Herbaceous Floodplain Width Wide > 30ft Moderate 15-30ft Narrow <16ft Wetland Present Yes No Wetland ID				<u></u>	nuaciieu aiga	<u> </u>	

	No bank mods. No dam. Wetland W-E5 is adjacent to, but not connected to, stream within ROW but may potentially connect further downstream (and off-ROW) to the SE.
MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	Information listed on this form represents the data collected in 2015. The stream was revisited on 11/11/2019. The presence of a stream channel and OHWM was confirmed



Photograph Direction South

Comments: 2015 stream identification.



Photograph Direction North

Date: 11/11/2019

STREAM ID S-E17	STREAM NAME UNT to Blackwater River			
LAT 37.000473 LONG -79.742849	DATE 04/03/2015			
CLIENT MVP	PROJECT NAME MVP			
INVESTIGATORS S Ryan, A Mengel, L Sexton				
FLOW REGIME Perennial — Intermittent Ephemeral —	WATER TYPE TNW — RPW ✓ NRPW —			

		1				
			Measurements		Stream Erosion	Heave
		·	k Width: 8 ft		<u>✓ None</u> Moderate	Heavy
		Top of Ban	•		Artificial, Modified or Char	nnelized
		LB <u>3.0 ft</u> RB <u>3.0 ft</u>		<u>✓</u> Yes No		
CHANNEL FE	ATURES	Water Depth: 4.00 in		Dam Present _v Yes _	No	
		water width. 6.0 It				
		Ū	Mark: <u>4.0 ft</u>		Sinuosity Low	Medium High
		Flow Direct	tion: Northeast		Gradient	
					<u>✓</u> Flat Moderate (2 ft/100 ft)	Severe (10 ft/100 ft)
		Water Pres			Proportion of Reach Repre	esented by Stream
		Stream I	r, stream bed dry ned moist		Morphology Types Riffle 25 % Run 60	%
F1 014		Standing			Pool 15 %	
FLOW CHARACTER	ISTICS	<u>✓</u> Flowing	water		T. uhidita	
		Velocity			Turbidity <u>✓</u> ClearSlightly	turbidTurbid
		Fast <u>✓</u> Moderate			OpaqueStained	
		Slow			Other	
INOR		STRATE CO		ORGANIC SUBSTRATE COMPONENTS		
	(should	add up to 10	,	•	(does not necessarily add up to 100%)	
Substrate Type	Diame	eter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock			75	Detritus	sticks, wood, coarse	
Boulder		mm (10")			plant materials (CPOM)	5
Cobble		m (2.5"-10")	10	Muck-Mud	black, very fine organic	
Gravel		1 (0.1"-2.5")	4.5		(FPOM)	
Sand		nm (gritty)	15	NA1	and the life and the	
Silt		0.06 mm		Marl	grey, shell fragments	
Clay	< 0.004	mm (slick)	 ant Surrounding Lan	duso	Indicate the dominant type	(Chack and)
		✓ Forest		cial	<u>✓</u> Trees Shrub	
		Field/P	astureIndustrial	l	<u>✓</u> Grasses <u>✓</u> Herba	ceous
		Agricult	tural Resident		Floodplain Width	
FEATURES		Other:			✓ Wide > 30ft Moderate 15-30ft	
		Canopy Cover			Narrow <16ft	
		Partly open Partly shaded		aded	Wetland Present _v_Yes	No
					Wetland ID	
AOHATIONE	OFTATION:		e dominant type and	d record the d	Iominant species present	ting Froe floating
AQUATIC VEGETATION		Rooted emergentRooted submergentRooted floatingFree Floating algae Attached algae			ingFree licating	
			<u>v</u>	aorioù aiga		

	No channel mods. No dam. No wetland.
MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	Information listed on this form represents the data collected in 2015. The stream was revisited on 11/11/2019. The presence of a stream channel and OHWM was confirmed



Photograph Direction NNE

Comments: 2015 stream identification.



Photograph Direction _____

Date: <u>11/11/2019</u>

STREAM ID S-E14	STREAM NAME UNT to Blackwater River
LAT 36.995658 LONG -79.735303	DATE 04/03/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS S Ryan, A Mengel, L Sextor	i e
FLOW REGIME Perennial Intermittent Ephemeral	WATER TYPE TNW — RPW ✓ NRPW —

			leasurements		Stream Erosion	Haarin
		'	k Width: 20 ft		NoneModerate	Heavy
					Artificial, Modified or Char	nnelized
					<u>✓</u> YesNo	
CHANNEL FE	ATURES	Water Depth: 6.00 in Water Width: 6.0 ft			Dam Present _v Yes _	No
					Sinuosity Low	
		Ŭ	Mark: 5.0 in		Omdosity Low	
		Flow Direct	ion: INOITII		Gradient Flat ✓ Moderate	Severe
						(10 ft/100 ft)
		Water Pres			Proportion of Reach Repre	esented by Stream
			r, stream bed dry bed moist		Morphology Types Riffle 40 % Run 50	%
		Standing			Pool 10 %	70
FLOW CHARACTER	ISTICS	Flowing			.•	
OHARAGIER	01100				Turbidity Slightly	turbid Turbid
		Velocity Fast ✓ Moderate			<u>✓ Clear</u> Slightly turbidTurbid OpaqueStained	
		Slow	Woderate		— Other	
I — I — I — I INORGANIC SUBSTRATE COMPONE			MPONENTS	0	RGANIC SUBSTRATE COM	IPONENTS
	(should	add up to 100	0%)	(does not necessarily add up to 100%)		
Substrate Type	Diame	eter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock				Detritus	sticks, wood, coarse	
Boulder		mm (10")		Detilitus	plant materials (CPOM)	20
Cobble	64-256 m	m (2.5"-10")	30	Muck-Mud	black, very fine organic	
Gravel	2-64 mm	า (0.1"-2.5")			(FPOM)	
Sand		nm (gritty)	50			
Silt		0.06 mm		Marl	grey, shell fragments	
Clay	< 0.004	mm (slick)	20			
		Predomina ✓ Forest	nnt Surrounding Lan Commer		Indicate the dominant type ✓ Trees Shrub	
			astureIndustrial		✓ Trees Shrubs Grasses Herbaceous	
		Agricult	ural Resident			
WATERSHED FEATURES		Other:	<u>—</u>		Floodplain Width Wide > 30ft Moderate 15-30ft	
		0			Narrow <16ft	rate 10 doit
		Canopy Cover Partly open Partly shaded		aded	_	
<u>✓</u> Shaded				Wetland PresentYes Wetland ID	<u>✓</u> No	
Indicate			e dominant type and	d record the	dominant species present	
AQUATIC VEGETATION		Rooted emergentRooted submergentRooted floatingFree floating				
		Floating	g algae 🔽	Attached alga	e	

	No channel mod. No dam.
MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	Information listed on this form represents the data collected in 2015. The stream was revisited on 11/11/2019. The presence of a stream channel and OHWM was confirmed



Photograph Direction South

Comments: 2015 stream identification.



Photograph Direction North

Date: 11/11/2019

STREAM ID S-H38	STREAM NAME UNT to Jack's Creek
LAT 36.989475 LONG -79.722378	DATE 04/06/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS A.Stott, A.Grech, H. Heist	
FLOW REGIME Perennial Intermittent Ephemeral	WATER TYPE TNW RPW ⊻ NRPW

Estimate Measurements			Stream Erosion			
		Top of Ban	k Width: 12 ft		<u>✓</u> None Moderate	Heavy
		Top of Bank Height:			Artificial, Modified or Chan	nelized
		LB <u>6.0 ft</u> RB <u>6.0 ft</u>		<u>ft</u>	Yes _✓ No	
CHANNEL FE	ATURES	Water Depth: 3.00 in			Barra Brasa and Mar	. N
		Water Width: 11.0 ft			Dam PresentYes	<u>/</u> N0
		High Water	Mark: <u>1.0 ft</u>		Sinuosity 🔽 Low	Medium High
		Flow Direct	tion: South		Gradient	
					Flat Moderate _	Severe (10 ft/100 ft)
		Water Pres			Proportion of Reach Repre	sented by Stream
			r, stream bed dry oed moist		Morphology Types Riffle 30 % Run 70	%
		Standing			Pool %	70
FLOW CHARACTER	ISTICS	<u>✓</u> Flowing	•			
		Valasitu			Turbidity <u>✓</u> ClearSlightly to	turbidTurbid
		Velocity Fast	✓ Moderate		OpaqueStained	
		Slow			Other	
INORGANIC SUBSTRATE COMPONENTS			MPONENTS	ORGANIC SUBSTRATE COMPONENTS		
	(should	add up to 10	0%)	(does not necessarily add up to 100%)		
Substrate Type	Diame	eter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock				Detritus	sticks, wood, coarse	
Boulder		mm (10")		Detritus	plant materials (CPOM)	5
Cobble		m (2.5"-10")	15	Muck-Mud	black, very fine organic	
Gravel		1 (0.1"-2.5")	15		(FPOM)	
Sand		nm (gritty)	50			
Silt		0.06 mm	20	Marl	grey, shell fragments	
Clay	< 0.004	mm (slick)	not Curreum dina I am	duca	Indicate the deminent true	(0),
		✓ Forest	ant Surrounding Lan Commer		Indicate the dominant type ✓ Trees Shrub	
		Field/Pasture Industrial			Grasses Herba	ceous
WATERSHED		Agricult	ural Resident	tial	Floodplain Width	
FEATURES		Other:			Wide > 30ft Moderate 15-30ft	
		Canopy Co	over		✓ Narrow <16ft	
		<u>✓</u> Partly openPartly sha		aded Wetland PresentYes _v_No		<u>✓</u> No
		Shaded	OpenOpen		Wetland ID	<u>•</u> 110
					dominant species present	
AQUATIC VEGETATION		— Rooted Floating	· —	Rooted subm Attached alga	<u> </u>	ingFree floating
		rivatili	<u></u>	nuavieu aiga		
		Information	listed on this form re-	nresents the c	data collected in 2015. The str	eam was revisited
		on 11/11/20	119 The presence of	a stream chai	nnel and OHWM was confirm	ed

	Information listed on this form represents the data collected in 2015. The stream was revisited on 11/11/2019. The presence of a stream channel and OHWM was confirmed
MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	



Photograph Direction South

Comments: 2015 stream identification.



Photograph Direction West

Date: 11/11/2019

STREAM ID S-H32	STREAM NAME UNT to Jacks Creek
LAT 36.988313 LONG -79.708174	DATE 04/04/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS A.Stott, A.Grech, H. Heist	
FLOW REGIME Perennial ✓ Intermittent Ephemeral —	WATER TYPE TNW — RPW ✓ NRPW —

Т			lleasurements k Width: <u>10 ft</u>		Stream ErosionNone <u>✓</u> Moderate	Heavy
		Top of Bank Height:		Artificial, Modified or Char	nelized	
		LB 2.0	ft RB <u>6.0</u>	<u>ft</u>	<u>✓</u> YesNo	
CHANNEL FE	ATURES	Water Depth: 3.00 in Water Width: 4.0 ft		Dam PresentYes	<u>∕</u> No	
			Mark: 1.0 ft		Sinuosity <u>~</u> Low	Medium High
		_	tion: South		Gradient	
					✓ FlatModerate _	Severe (10 ft/100 ft)
Stream b		ter, stream bed dry n bed moist ing water ig water		Proportion of Reach Representations of Reach R	%	
		VelocityFastSlow	<u>✓</u> Moderate		OpaqueStained Other	
INORGANIC SUBSTRATE COMPONENTS			_	RGANIC SUBSTRATE CON		
	(should	add up to 100	0%)	(0	does not necessarily add u	p to 100%)
Substrate Type	Diame	eter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock				Detritus	sticks, wood, coarse	
Boulder		mm (10")	5	200.100	plant materials (CPOM)	20
Cobble		m (2.5"-10")	20	Muck-Mud	black, very fine organic (FPOM)	
Gravel		1 (0.1"-2.5")	15 45		(FPOIVI)	
Sand Silt		nm (gritty) 0.06 mm		Marl	grey, shell fragments	
Clay		mm (slick)	15	iviaii	grey, shell fragments	
Predominant Surrounding Landuse			s ceous ceous rate 15-30ft			
AQUATIC VE	GETATION	Indicate the dominant type and record the dominant species present Rooted emergent			ingFree floating	
		Information	listed on this form ro	presents the s	lata collected in 2015. The st	ream was revisited
		i ii ii Ui i ii allUi i	HOLEU OH HIIO IUIIII IE	DIESELIS 1116 C	iaia conecieu in 2013. THE St	Earn was revisited

MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	on 11/12/2019. The presence of a stream channel and OHWM was confirmed
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Photograph Direction South

Comments: 2015 stream identification.



Photograph Direction East

Date: 11/12/2019

STREAM ID S-H37	STREAM NAME UNT to Jacks Creek
LAT 36.988003 LONG -79.717452	DATE 04/04/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS A.Stott, A.Grech, H. Heist	
FLOW REGIME Perennial Intermittent Ephemeral	WATER TYPE TNW RPW NRPW <u>✓</u>

			Measurements .		Stream Erosion	
		Top of Ban	k Width: 6 ft		None Moderate	Heavy
			Top of Bank Height:		Artificial, Modified or Char	nnelized
		LB <u>3.0</u>	ft RB <u>3.0</u>	<u>ft</u>	<u>✓</u> YesNo	
CHANNEL FE	ATURES	Water Depth: 3.00 in		Dam Procent Voc.	∠ No.	
		vvater vvidtn: 3.0 π		Dam PresentYes <u>✓</u> No		
		High Water	Mark: <u>1.0 ft</u>		Sinuosity 🔽 Low	Medium High
		Flow Direct	tion: South		Gradient	
					Flat Moderate	Severe
		Water Dree			,	(10 ft/100 ft)
		Water Pres No wate	r, stream bed dry		Proportion of Reach Representation Morphology Types	sented by Stream
		Stream l	ped moist		Riffle 75 % Run	%
FLOW		<u>✓</u> Standing			Pool 25 %	
CHARACTER	ISTICS	Flowing	water		Turbidity	
		Velocity			ClearSlightly	
			✓ Moderate		Opaque ✓ Stained	
Slow					Other	
INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)		ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)				
Substrate Type	Diame		% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock			, ,	5	sticks, wood, coarse	
Boulder	> 256	mm (10")	5	Detritus	plant materials (CPOM)	35
Cobble	64-256 m	m (2.5"-10")	15	Muck-Mud	black, very fine organic	
Gravel	2-64 mm	(0.1"-2.5")	25	Widok-Widd	(FPOM)	
Sand	0.06-2n	nm (gritty)	35			
Silt		0.06 mm	20	Marl	grey, shell fragments	
Clay	< 0.004	mm (slick)				
		Predomina ✓ Forest	ant Surrounding Lan Commer	i duse rcial	Indicate the dominant type Trees Shrub	
		Field/Pa			✓ Grasses ✓ Herba	
MATEROUER		Agricult	tural Resident	tial	Floodplain Width	
WATERSHED FEATURES		✓ Other:			Wide > 30ft ✓ Mode	rate 15-30ft
		Canopy Co	over		Narrow <16ft	
		<u>✓</u> Partly c	ppenPartly sh	aded	led Wetland PresentYes _v_No	
		Shaded	Open		Wetland ID	<u>▼</u> NU
		Indicate th	e dominant type and	d record the	dominant species present	
AQUATIC VEGETATION		Rooted emergentRooted submergentRooted floating _∠ Free float Floating algae Attached algae			ing _v_Free floating	

	Crosses power line corridor
MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	Information listed on this form represents the data collected in 2015. The stream was revisited on 11/11/2019. The presence of a stream channel and OHWM was confirmed



Photograph Direction South

Comments: 2015 stream identification.



Photograph Direction North

Date: 11/11/2019

STREAM ID S-H34	STREAM NAME UNT to Jack's Creek
LAT 36.988332 LONG -79.711818	DATE 04/04/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS A.Stott, A.Grech, H. Heist	
FLOW REGIME Perennial Intermittent Ephemeral	WATER TYPE TNW RPW ✓ NRPW

		Estimate Measurements			Stream Erosion	Hann
		'	k Width: 3 ft		None Moderate	neavy
		Top of Bank Height:			Artificial, Modified or Char	nelized
					Yes No	
CHANNEL FE	ATURES	Water Depth: 1.00 in			Dam PresentYes	✓ No
		Water Width: 1.0 ft				_
		High Water	Mark: <u>4.0 in</u>		Sinuosity <u>v</u> Low	Medium High
		Flow Direct	tion: South		Gradient	
						Severe (10 ft/100 ft)
		Water Pres			Proportion of Reach Repre	sented by Stream
			r, stream bed dry oed moist		Morphology Types Riffle 70 % Run 30	%
O.W		Standing			Pool %	
FLOW CHARACTER	ISTICS	Flowing	water		Toubidie.	
		Velocity			Turbidity <u>✓</u> ClearSlightly	turbidTurbid
		Fast Moderate			OpaqueStained	
		Slow			Other	
INOR	INORGANIC SUBSTRATE COMPONENTS			ORGANIC SUBSTRATE COMPONENTS		
	(snould	add up to 100		(does not necessarily add up to 100%)		
Substrate Type	Diame	ter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock				Detritus	sticks, wood, coarse	
Boulder		mm (10")			plant materials (CPOM)	35
Cobble		m (2.5"-10")		Muck-Mud	black, very fine organic (FPOM)	
Gravel		1 (0.1"-2.5")	10 50		(I FOW)	
Sand Silt		nm (gritty) 0.06 mm		Marl	grey, shell fragments	
Clay		mm (slick)	40	IVIAII	grey, shell fragments	
Clay	₹ 0.004	` '	ent Surrounding Lan	dusa	Indicate the dominant type	(Chack ana)
		Predominant Surrounding Landuse Forest Commercial			Trees Shrub	
		Field/Pa			Grasses	
WATERSHED		Agricult <u> ✓</u> Other:	ural Resident	tial		
FEATURES		V Other.			Wide > 30ft Moderate 15-30ft	
		Canopy Cover			<u>✓</u> Narrow <16ft	
		Partly open Partly shaded Shaded Popen		aded	Wetland Present _v_Yes	No
					Wetland ID VV-H14	
AOUATIC VE	SETATION		e dominant type and Lemergent	d record the o	dominant species present ergent Rooted float	ing Free floating
AQUATIC VEGETATION		✓ Rooted emergent — Rooted submergent — Rooted floating — Free flo			i ise iloating	
			<u> </u>			

	In powerline corridor
MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	Information listed on this form represents the data collected in 2015. The stream was revisited on 11/12/2019. The presence of a stream channel and OHWM was confirmed

Stream ID S-H34



Photograph Direction South

Date: 04/04/2015

Comments: 2015 stream identification.



Photograph Direction North

Date: 11/12/2019

STREAM ID S-H36	STREAM NAME UNT to Jacks Creek
LAT 36.9879 LONG -79.714803	DATE 04/04/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS A.Stott, A.Grech, H. Heist	
FLOW REGIME Perennial Intermittent Ephemeral	WATER TYPE TNW RPW ✓ NRPW

		Estimate N	l leasurements		Stream Erosion	
		Top of Ban	k Width: 3 ft		None Moderate	Heavy
		Top of Bank Height:		Artificial, Modified or Chan	nelized	
		LB <u>1.0 ft</u> RB <u>1.0 ft</u>		<u>✓</u> Yes No		
CHANNEL FE	ATURES	Water Depth: 4.00 in		Dam PresentYes	✓ No	
		vvater vvidtn: 2.0 π			- -	
		High Water	Mark: <u>6.0 in</u>		Sinuosity Low	Medium High
		Flow Direct	tion: South		Gradient	
						✓ Severe (10 ft/100 ft)
		Water Pres			Proportion of Reach Repre	sented by Stream
			r, stream bed dry bed moist		Morphology Types Riffle 75 % Run	%
		— Standing			Pool 25 %	,,
FLOW CHARACTER	STICS	<u>✓</u> Flowing				
					Turbidity <u>✓</u> ClearSlightly to	turbidTurbid
		Velocity Fast ✓ Moderate			✓ ClearSlightly turbidTurbidOpaqueStained	
		Slow			Other	
INORGANIC SUBSTRATE COMPONENTS			MPONENTS	ORGANIC SUBSTRATE COMPONENTS		
	(should	add up to 10	0%)	(does not necessarily add up to 100%)		
Substrate Type	Diame	eter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock				Detritus	sticks, wood, coarse	
Boulder	> 256	mm (10")	15	Detritus	plant materials (CPOM)	30
Cobble	64-256 m	m (2.5"-10")	25	Muck-Mud	black, very fine organic	
Gravel		1 (0.1"-2.5")	15		(FPOM)	
Sand		nm (gritty)	25			
Silt		0.06 mm	20	Marl	grey, shell fragments	
Clay	< 0.004	mm (slick)				
		Predomina ✓ Forest	ant Surrounding Lan Commer	iduse rcial	Indicate the dominant type Trees Shrub:	
		Field/P			✓ Grasses ✓ Herba	
		Agricult	tural Resident	tial		
WATERSHED FEATURES		✓ Other:			Floodplain Width Wide > 30ft ✓ Moderate 15-30ft	
		Canopy Co	over		Narrow <16ft	
		Partly o		aded	Wetland Dresent (Voc	No
		Shaded	Open		Wetland Present ✓ Yes Wetland ID VV-H15	
			e dominant type and	d record the d	dominant species present	
AQUATIC VEGETATION		Rooted emergentRooted submergentRooted floating _v_Free floati Floating algae Attached algae			ing Free floating	
			y aiya c	Attached alga	-	

	Crosses power line corridor
	Tusalated darters
MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	Information listed on this form represents the data collected in 2015. The stream was revisited on 11/12/2019. The presence of a stream channel and OHWM was confirmed



Photograph Direction North

Comments: 2015 stream identification.



Photograph Direction North

Date: 11/12/2019

STREAM ID S-H30	STREAM NAME UNT to Jacks Creek
LAT 36.987775 LONG -79.702611	DATE 04/04/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS A.Stott, A.Grech, H.Heist	
FLOW REGIME Perennial Intermittent Ephemeral	WATER TYPE TNW RPW ⊻ NRPW

			Measurements k Width: 2 ft		Stream ErosionNone <u>✓</u> Moderate	Heavy
		Top of Bank Height:		Artificial, Modified or Channelized		
		LB 4.0	in RB <u>4.0</u>	<u>in</u>	Yes ✓ No	inenzeu
CHANNEL FE	ATURES	Water Depth: 0.00 in		Dam PresentYes	<u>∕</u> No	
		water width: 0.0 in				
		ľ	Mark: <u>1.0 in</u>		Sinuosity <u>v</u> Low	iviedium High
		Flow Direct	tion: South		Gradient	
					✓ FlatModerate (0.5/100 ft(2 ft/100 ft)	Severe (10 ft/100 ft)
		Water Pres			Proportion of Reach Repre	sented by Stream
			r, stream bed dry oed moist		Morphology Types Riffle % Run	%
		— Standing			Pool %	
FLOW CHARACTER	ISTICS	Flowing	•			
01344010121					Turbidity ClearSlightly to	turbidTurbid
		Velocity Fast	Moderate		OpaqueStained	
		Slow			Other	
INORGANIC SUBSTRATE COMPONENTS ORGANIC SUBSTRATE COMPONENTS			IPONENTS			
		add up to 100		(does not necessarily add up to 100%)		
Substrate Type	Diame	eter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock				Detritus	sticks, wood, coarse	
Boulder	> 256	mm (10")		Delilius	plant materials (CPOM)	70
Cobble	64-256 m	ım (2.5"-10")		Muck-Mud	black, very fine organic	
Gravel	2-64 mm	า (0.1"-2.5")		WIGGK-WIGG	(FPOM)	
Sand	0.06-2r	nm (gritty)	30			
Silt	0.004-	0.06 mm	70	Marl	grey, shell fragments	
Clay	< 0.004	mm (slick)				
			ant Surrounding Lan		Indicate the dominant type	
		Forest Commercial Field/Pasture Industrial			✓ Trees Shrub: Grasses Herba	
		— Agricult			Grassesnerba	ceous
WATERSHED FEATURES		Other:			Floodplain Width Wide > 30ft Moderate 15-30ft	
		Canopy Co	over		✓ Narrow <16ft	
		<u>✓</u> Partly o		aded	Wetland Present <u>v</u> YesNo	
		ShadedOpen			Wetland ID W-H11	
AQUATIC VEGETATION					dominant species present	
				Rooted subme		ingFree floating
		Floating	y aigae	Attached alga	e	
		\/\oto= := = =	ol of 9" Floure counts			
		vvater in po	ool at 8". Flows south.			

MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	Information listed on this form represents the data collected in 2015. The stream was revisited on 11/12/2019. The presence of a stream channel and OHWM was confirmed
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Stream ID S-H30



Photograph Direction SSE

Date: 04/04/2015

Comments: 2015 stream identification.



Photograph Direction SSE

Date: 11/12/2019

STREAM ID S-A18	STREAM NAME UNT to Jacks Creek
LAT 36.987689 LONG -79.700488	DATE 04/03/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS S.Yarbrough, C.Stoliker, J.H	leule
FLOW REGIME Perennial — Intermittent ✓ Ephemeral —	WATER TYPE TNW RPW NRPW

		Estimate No.	leasurements k Width: 3 ft		Stream Erosion None Moderate	Heavy
		Top of Bank Height:			Artificial. Modified or Char	analizad
		LB <u>6.0 in</u> RB <u>6.0 in</u>			Yes V No	inelizea
CHANNEL FE	ATURES	Water Depth: 0.50 in			Dam Present ✓ Yes	No
		Water Width: 18.0 ft				
		High Water	Mark: <u>3.5</u> in		Sinuosity <u>v</u> Low	Medium High
		Flow Direct	ion: Southwest		Gradient	
					<u>✓</u> FlatModerate (2 ft/100 ft)	Severe (10 ft/100 ft)
		Water Pres	sent r, stream bed dry		Proportion of Reach Representation Morphology Types	esented by Stream
			n, stream bed dry bed moist		Riffle % Run 70	%
		Standing			Pool 30 %	
FLOW CHARACTER	ISTICS	<u>✓</u> Flowing	water			
					Turbidity <u>✓</u> ClearSlightly	turbidTurbid
		VelocityFast Moderate			OpaqueStained	
		✓ Slow			Other	
INORGANIC SUBSTRATE COMPONENTS ORGANIC SUBSTRATE COMPONENTS				IPONENTS		
(should add up to 100%)			(does not necessarily add up to 100%)			
Substrate Type	Diame	eter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock				Detritus	sticks, wood, coarse	
Boulder		mm (10")		Dountdo	plant materials (CPOM)	
Cobble	64-256 m	ım (2.5"-10")		Muck-Mud	black, very fine organic	
Gravel		า (0.1"-2.5")			(FPOM)	
Sand		nm (gritty)	30			
Silt		0.06 mm	35	Marl	grey, shell fragments	
Clay	< 0.004	mm (slick)	35			
		Predomina ✓ Forest	int Surrounding Lan Commer		Indicate the dominant type ✓ Trees Shrub	
		Field/Pa			Grasses Herba	
		Agricult		ial	<u> </u>	
WATERSHED FEATURES		Other:			Floodplain Width Wide > 30ft Mode	rate 15-30ft
		Canopy Co	over		✓ Narrow <16ft	
		Partly o		aded	Wedlend Durrent Ver	4 Ma
Shac		Shaded	Open		Wetland PresentYes Wetland ID	<u>v</u> No
					dominant species present	
AQUATIC VEGETATION		Rooted emergentRooted submergentRooted floatingFree floating				tingFree floating
Floating			g aigae	Attached alga	<u> </u>	

	Small dam upstream. Intermittent system.
MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	Information listed on this form represents the data collected in 2015. The stream was revisited on 11/12/2019. The presence of a stream channel and OHWM was confirmed



Photograph Direction NW

Comments: 2015 stream identification.



Photograph Direction NW

Date: 11/12/2019

STREAM ID S-A19/S -H26	STREAM NAME UNT to Jacks Creek
LAT 36.987728 LONG -79.698922	DATE 04/03/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS S.Yarbrough, C.Stoliker, J.H	leule
FLOW REGIME Perennial — Intermittent ✓ Ephemeral —	WATER TYPE TNW — RPW ✓ NRPW —

			leasurements		Stream Erosion		
		'	k Width: 7 ft		NoneModerate	Heavy	
		Top of Ban	•		Artificial, Modified or Char	nelized	
		LB <u>44.0</u>	in RB <u>52.0</u>	<u>in</u>	Yes No		
CHANNEL FE	ATURES	Water Depth: 0.50 in			Dam Present ✓ Yes	No	
		Water Width: 18.0 in			- -	_	
		High Water	Mark: <u>24.0 in</u>		Sinuosity Low	Medium High	
		Flow Direct	ion: South		Gradient		
						Severe	
		Motor Duce	4			(10 ft/100 ft)	
		Water Pres	sent r, stream bed dry		Proportion of Reach Repre Morphology Types	sented by Stream	
		Stream b			Riffle 60 % Run 40	%	
FLOW		Standing			Pool %		
CHARACTER	STICS	<u>✓</u> Flowing	water		Turbidity		
		Velocity			✓ ClearSlightlySlightlySlightly		
		Fast Moderate			OpaqueStained		
<u>✓</u> Slow				T	Other		
INORGANIC SUBSTRATE COMPONENTS (should add up to 100%) ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)							
Cubatrata	(Siloulu	add up to Tot	% Composition in	`	(does not necessarily add up to 100%) Substrate % Composition in		
Substrate Type	Diame	eter	Sampling Reach	Type	Characteristic	Sampling Area	
Bedrock				Detritus	sticks, wood, coarse		
Boulder		mm (10")	5		plant materials (CPOM)	30	
Cobble		m (2.5"-10")	15	Muck-Mud	black, very fine organic		
Gravel		1 (0.1"-2.5")	30		(FPOM)		
Sand		nm (gritty)	35	Morl	arov shall fragments		
Silt		0.06 mm mm (slick)	15	Marl	grey, shell fragments		
Clay	< 0.004	` ′	ant Surrounding Lan	duso	Indicate the dominant type	(Chaok ana)	
		Forest	•		Trees Shrub		
		Field/Pa			✓ Grasses Herba	ceous	
WATERSHED		Agricult	ural Resident	tial	Floodplain Width		
FEATURES		<u>✓</u> Other:			Wide > 30ft Moderate 15-30ft		
		Canopy Co	over		✓ Narrow <16ft		
		Partly o	· — ·	aded	Wetland Present Yes	∠ No	
		Shaded	Open		Wetland ID		
					dominant species present		
AQUATIC VEGETATION		Rooted emergentRooted submergentRooted floatingFree floating Floating algae Attached algae					
		— Fioaling	y aiyae	Allacineu alga	C		

	Land use = transmission line corridor. Intermittent.
	(Original S-A19)
MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	Information listed on this form represents the data collected in 2015. The stream was revisited on 11/12/2019. The presence of a stream channel and OHWM was confirmed

Stream Photograph Page

Stream ID S-A19/S -H2



Photograph Direction SE

Date: 04/03/2015

Comments: 2015 stream identification.



Photograph Direction SE

Date: 11/12/2019

STREAM ID S-A20	STREAM NAME UNT to Jacks Creek
LAT 36.988057 LONG -79.698583	DATE 04/03/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS Yarbrough, Stoliker, Heule	
FLOW REGIME Perennial Intermittent Ephemeral	WATER TYPE TNW RPW NRPW <u>✓</u>

		Estimate No.	lleasurements k Width: <u>7</u> ft		Stream ErosionNoneModerate	Heavy
		1 D 10 0 in DD in		Artificial, Modified or Char	nnelized	
CHANNEL FE	ATURES	Water Depth: 0.50 in Water Width: 1.0 ft		Dam PresentYes _	<u>✓</u> No	
		High Water	Mark: <u>1.0 ft</u>		Sinuosity <u>v</u> Low	Medium High
		Flow Direct	tion: South		Gradient	
					Flat	Severe (10 ft/100 ft)
FLOW CHARACTERISTICS No wasStream V StandFlowin		No wate Stream t Standing	No water, stream bed dry Stream bed moist Standing water Flowing water		Proportion of Reach Reproduction of Reach Reproduction States and	%
		Fast Moderate Slow			Opaque Stained Other	
INOR		STRATE CO		ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diame		% Composition in Sampling Reach	Substrate Type		% Composition in Sampling Area
Bedrock			20	Detritus	sticks, wood, coarse	
Boulder		mm (10")	5	Detritus	plant materials (CPOM)	50
Cobble		ım (2.5"-10")	10	Muck-Mud	black, very fine organic	
Gravel		1 (0.1"-2.5")	10		(FPOM)	
Sand		nm (gritty)	30	NAI		
Silt Clay		0.06 mm mm (slick)	25	Marl	grey, shell fragments	
Predominant Surrounding Landuse		os` aceous rate 15-30ft				
AQUATIC VE	- · ·		d record the or Rooted submark Attached alga	ergentRooted floa	tingFree floating	
		Transmissi	on line corridor Stone	ding water in n	ookoto	

	Transmission line corridor. Standing water in pockets.
MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	Information listed on this form represents the data collected in 2015. The stream was revisited



Photograph Direction SSW_

Comments: 2015 stream identification.



Photograph Direction NNE

Date: 11/12/2019

STREAM ID S-H28	STREAM NAME UNT to Jacks Creek
LAT 36.985173 LONG -79.692271	DATE 04/03/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS A.Stott, A.Grech, H.Heist	
FLOW REGIME Perennial Intermittent Ephemeral	WATER TYPE TNW RPW NRPW <u>✓</u>

Perennial _	_ Intermitte	nt Epheme	eral TNW	RPW	NRPW <u> </u>	
			leasurements k Width: 6 ft		Stream Erosion None Moderate	Heavy
					Artificial, Modified or Chan	inelized
		LB <u>4.0 ft</u> RB <u>4.0 ft</u>			Yes No	
CHANNEL FE	ATURES	Water Depth: 0.00 in Water Width: 0.0 ft		Dam PresentYes	<u>∕</u> No	
		High Water	Mark: <u>6.0 in</u>		Sinuosity <u>v</u> Low	Medium High
		Flow Direct	ion: Southeast		Gradient	
					Flat Moderate (2 ft/100 ft)	Severe (10 ft/100 ft)
FLOW CHARACTER	ISTICS	Water Present Proportion of Reach Represented by St ✓ No water, stream bed dry Morphology Types Stream bed moist Riffle % Run % Standing water Pool % — Flowing water Turbidity Velocity — Clear — Slightly turbid — Test — Fast — Moderate — Opaque — Stained Slow — Other		%		
I — I — INORGANIC SUBSTRATE COMPONENTS ORGANIC SUBSTRATE COMPONENTS						
		add up to 100%)		_	(does not necessarily add up to 100%)	
Substrate Type	Diame	ter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock				Detritus	sticks, wood, coarse	
Boulder		mm (10")			plant materials (CPOM)	80
Cobble		m (2.5"-10")	5	Muck-Mud	black, very fine organic (FPOM)	
Gravel Sand		n (0.1"-2.5") nm (gritty)	5		(I I OW)	
Silt		0.06 mm	90	Marl	grey, shell fragments	
Clay		mm (slick)	90	Wildin	grey, shell magnitude	
, , ,		Pasture Industrial Itural Residential		Indicate the dominant type (Check one) Trees Shrubs Grasses Herbaceous Floodplain Width Wide > 30ft Moderate 15-30ft		
Partly		Canopy Co Partly o	rtly openPartly shaded		✓ Narrow <16ft Wetland PresentYes Wetland ID	<u>~</u> No
AQUATIC VE	GETATION	Indicate the dominant type and record the dominant specific and re		ergentRooted float	ingFree floating	
		1				
		Information on 11/13/20	listed on this form re 119. The presence of	presents the d a stream char	ata collected in 2015. The str nnel and OHWM was confirm	ream was revisited ed

	Information listed on this form represents the data collected in 2015. The stream was revisited on 11/13/2019. The presence of a stream channel and OHWM was confirmed
MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	



Photograph Direction NNW

Comments: 2015 stream identification.



Photograph Direction North

Date: 11/13/2019

STREAM ID S-H27	STREAM NAME UNT to Jacks Creek
LAT 36.985184 LONG -79.692236	DATE 04/03/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS A.Stott, A.Grech, H.Heist	
FLOW REGIME Perennial Intermittent Ephemeral	WATER TYPE TNW RPW NRPW <u>✓</u>

			leasurements		Stream Erosion	Harris	
		Top of Bank Width: 10 ft			<u>✓</u> NoneModerate	Heavy	
					Artificial, Modified or Char	nnelized	
		LB <u>2.5 ft</u> RB <u>2.5 ft</u>			Yes No		
CHANNEL FEATURES		Water Depth: 0.00 in			Dam PresentYes _	∠ No	
		Water Widt	h: <u>0.0 ft</u>				
		High Water	Mark:ft		Sinuosity <u>v</u> Low	Medium High	
		Flow Direct	ion: South		Gradient		
					—	Severe (10 ft/100 ft)	
		Water Pres			Proportion of Reach Repre	esented by Stream	
		✓ No wate Stream b	r, stream bed dry		Morphology Types Riffle % Run	%	
		Standing			Pool %	70	
FLOW CHARACTER	ISTICS	Flowing	•				
		V-114			TurbidityClearSlightly turbidTur		
		Velocity Fast	Moderate		OpaqueStained		
Slow					Other		
INORGANIC SUBSTRATE COMPONENT				_	RGANIC SUBSTRATE CON		
	(should	add up to 100		`	(does not necessarily add up to 100%)		
Substrate Type	Diame	eter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area	
Bedrock				Detritus	sticks, wood, coarse		
Boulder		mm (10")		Detrituo	plant materials (CPOM)	40	
Cobble		m (2.5"-10")	5	Muck-Mud	black, very fine organic		
Gravel		1 (0.1"-2.5")	20		(FPOM)		
Sand		nm (gritty)	20				
Silt		0.06 mm	30	Marl	grey, shell fragments		
Clay	< 0.004	mm (slick)	25	4	Indicate the deminent type	(Ob a alla a a a	
		Predominant Surrounding Landuse Forest Commercial			Indicate the dominant type ✓ Trees Shrub		
		Field/Pa				ceous	
WATERSHED		Agricult	ural Resident	tial	Floodplain Width		
FEATURES		Other:			Wide > 30ft Mode	rate 15-30ft	
		Canopy Co			✓ Narrow <16ft		
		Partly o		aded	Wetland Present Yes	✓ No	
		Shaded			Wetland ID		
4011471037	OFT 4 7:01:	Indicate th	e dominant type and	d record the	dominant species present	ling Free fleating	
AQUATIC VEGETATION				Rooted submo	ergentRooted float e	ingriee floating	
					-		

	Ephemeral Stream flowing South.
MACROINVERTEBRATES OR OTHER	Information listed on this form represents the data collected in 2015. The stream was revisited on 11/13/2019. The presence of a stream channel and OHWM was confirmed
WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	



Photograph Direction North

Comments: 2015 stream identification.



Photograph Direction North

Date: 11/13/2019

STREAM ID S-A22	STREAM NAME UNT to Jacks Creek
LAT 36.985033 LONG -79.691419	DATE 04/03/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS S.Yarbrough, C.Stoliker, J.H	leule
FLOW REGIME Perennial Intermittent Ephemeral	WATER TYPE TNW RPW NRPW <u>✓</u>

		Top of Ban			Stream Erosion None Moderate	Heavy
					Artificial, Modified or Char	nnelized
		LB <u>4.0</u>		<u>rt</u>	Yes No	
CHANNEL FEATURES		Water Dept Water Widt	th: <u>0.50 in</u> h: <u>1.0 ft</u>		Dam PresentYes	<u>∕</u> No
		High Water	Mark: 20.0 in		Sinuosity <u>v</u> Low	Medium High
		Flow Direct	tion: Southwest		Gradient	
					Flat	Severe (10 ft/100 ft)
FLOW CHARACTERISTICS		Water Present ✓ No water, stream bed dry Stream bed moist Standing water Flowing water Velocity			Proportion of Reach Reproduction of Reach Reproduction States and	% turbidTurbid
		Fast Slow	Moderate		OpaqueStainedOther	
INORGANIC SUBSTRATE COMPONENTS			_	ORGANIC SUBSTRATE COMPONENTS		
	(should	add up to 100	0%)	(does not necessarily add u	p to 100%)
Substrate Type	Diame	eter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock			10	Detritus	sticks, wood, coarse	
Boulder		mm (10")	5	Detitus	plant materials (CPOM)	45
Cobble		ım (2.5"-10")	5	Muck-Mud	black, very fine organic	
Gravel		า (0.1"-2.5")	5		(FPOM)	
Sand		nm (gritty)	40			
Silt		0.06 mm	20	Marl	grey, shell fragments	
Clay	< 0.004	mm (slick)	15			
WATERSHED FEATURES		Predominant Surrounding Landus ✓ Forest Commercial _ Field/Pasture Industrial _ Agricultural Residential _ Other:		rcial I	Floodplain Width	
		Canopy Cover Partly open Shaded Open		aded	Wetland PresentYes Wetland ID	<u>~</u> No
AQUATIC VEGETATION Indicate the dominant type and Rooted emergent Floating algae			d record the or Rooted submark Attached alga	ergentRooted floa	tingFree floating	
		A diagont to	transmission sorrida	-		

	Adjacent to transmission corridor.
MACROINVERTEBRATES OR OTHER	Information listed on this form represents the data collected in 2015. The stream was revisited on 11/13/2019. The presence of a stream channel and OHWM was confirmed
WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	



Photograph Direction SW

Comments: 2015 stream identification.



Photograph Direction SW

Date: 11/13/2019

<u> </u>								
	STREAM ID S-MM44 STREAM NAME UNT to Little Jacks Creek							
LAT 36.98232		IG -79.68770	902 DATE 12/09	9/2015				
CLIENT MVP			PROJECT N	AME MVP				
INVESTIGATO		A.Grech						
TNW	RPW 🔽	NRPW [FLOW REG Perennial	IME Intermitt	ent Ephemeral			
		Fatimata I			Otrono Francisco			
					Stream Erosion ✓ None Moderate	Heavy		
		Top of Bank Height:						
				n	Artificial, Modified or Char	nnelized		
			th: <u>3.00</u> in	<u></u>	Yes No			
CHANNEL FE	ATURES	Water Widt			Dam PresentYes	<u>∠</u> No		
			igh Water Mark (Widt	h): 40 in	Sinuosity Low	Medium High		
		•	igh Water Mark (Weig	,		<u> </u>		
		,	ion: South	11t). <u>10.0 111</u>	Gradient Flat ✓ Moderate	Severe		
		Flow Direct	1011. <u>- 00utii</u>			(10 ft/100 ft)		
		Water Pres			Proportion of Reach Repre	esented by Stream		
			r, stream bed dry oed moist		Morphology Types Riffle 80 % Run 5	%		
		—Standing			Pool 15 %			
FLOW CHARACTERI	ISTICS	Flowing water			Turbidity			
		Velocity			✓ ClearSlightly turbidTurbi			
		•	✓ Moderate		Opaque Stained			
Slow Other								
INOR		STRATE CO add up to 10		_	RGANIC SUBSTRATE COM does not necessarily add u			
Substrate	Diame	ter	% Composition in	Substrate	Characteristic	% Composition in		
Type Bedrock			Sampling Reach	Туре	atialia wasal asansa	Sampling Area		
Boulder	> 256	mm (10")	10	Detritus	sticks, wood, coarse plant materials (CPOM)	10		
Cobble		m (2.5"-10")	30		black, very fine organic			
Gravel		n (0.1"-2.5")	30	Muck-Mud	(FPOM)			
Sand	0.06-2n	nm (gritty)	30					
Silt	0.004-0	0.06 mm		Marl	grey, shell fragments			
Clay	< 0.004	mm (slick)						
			ant Surrounding Lan		Indicate the dominant type			
		<u>✓</u> Forest Field/Pa	Commer asture Industria		<u>✓</u> Trees Shrub Herba	s ceous		
		Agricult						
WATERSHED FEATURES		Other:			Floodplain Width Wide > 30ft — Mode	rate 15-30ft		
		Canopy Cover			✓ Narrow <16ft			
		Open	Partly sh	aded	Wetland Dresent Ves	√ Na		
		<u>✓</u> Shaded		Wetland PresentYes Wetland ID	NO			
Indicate the dominant type and record the dominant species present								
			•		ergent Rooted float	ingFree floating		
Floating algae Attached algae								
		Crosses po	owerline corridor					
MACROINVER	RTERRATES							
OR OTHER WILDLIFE								
OBSERVED/C								
OBSERVATIO NOTES	UNA GNU							



Photograph Direction NNE

	STREAM ID S-MM46 STREAM NAME UNT to Little Jacks Creek						
LAT 36.98216	735 LON	G -79.687482	278 DATE 12/09	9/2015			
CLIENT MVP			PROJECT N	IAME MVP			
INVESTIGATO	ORS A.Stott,	A.Grech					
WATER TYPE TNW	RPW 🔽	NRPW [FLOW REG Perennial	IME Intermitt	ent Ephemeral		
	1						
					Stream Erosion ✓ None Moderate	Heavy	
		Top of Bank Height:					
		LB 3.0		in	Artificial, Modified or Char	nnelized	
				<u></u>	Yes No		
CHANNEL FE	ATURES		th: 1.00 in		Dam Present Yes	<u>∠</u> No	
		Water Widt		h). 20 in	Sinuosity <u>v</u> Low	Medium High	
		,	igh Water Mark (Widt	,		riigir	
		•	igh Water Mark (Heig	nt): <u>2.0 in</u>	Gradient Flat ✓ Moderate	Severe	
		Flow Direct	ion: South			(10 ft/100 ft)	
		Water Pres	sent		Proportion of Reach Repre	esented by Stream	
			r, stream bed dry		Morphology Types Riffle % Run	%	
		Stream	oed moist n water		Pool 100 %	70	
FLOW CHARACTERI	STICS	Flowing water					
		<u> </u>			Turbidity Clear ✓ Slightly turbidTurbid		
		Velocity Fast Moderate			Opaque Stained		
✓ Slo			<u>✓</u> Slow		Other		
INORGANIC SUBSTRATE COMPONENTS (should add up to 100%) 100 ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)							
Substrate Type	Diame	ter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area	
Bedrock				Detritus	sticks, wood, coarse		
Boulder		mm (10")		Boundo	plant materials (CPOM)	20	
Cobble		m (2.5"-10")		Muck-Mud	black, very fine organic		
Gravel		(0.1"-2.5")			(FPOM)		
Sand		nm (gritty)	30	NAl	anno a chall fua ann anta		
Silt Clay		0.06 mm mm (slick)	40 30	Marl	grey, shell fragments		
Clay	< 0.0041		ant Surrounding Lan	duse	Indicate the dominant type	<u> </u>	
		<u>✓</u> Forest	Commer		<u>✓</u> TreesShrub		
		Field/Pa			Grasses Herba	ceous	
WATERSHED		Agricult Other:	ural Resident	tial	Floodplain Width		
FEATURES		00161.			Wide > 30ftMode	rate 15-30ft	
		Canopy Cover			✓ Narrow <16ft		
		OpenPartly shadedShaded		Wetland PresentYes Wetland ID	<u>✓</u> No		
Indicate the dominant type and record the dominant species present AQUATIC VEGETATION Rooted emergent Rooted submergent Rooted floating Free floating							
				Attached alga	ergentRooted float	ingFree floating	
Floating algae Attached algae							
Flows into s-mm44							
		I IOWS IIIIO	5 HIIII 111				
MACROINVER	RTEBRATES						
OR OTHER WILDLIFE							
OBSERVED/O							
NOTES							



Photograph Direction North

STREAM ID S-MM45 STREAM NAME UNT to Little Jacks 0 LAT 36.98190256 LONG -79.68711976 DATE 12/12/2015 CLIENT MVP PROJECT NAME MVP INVESTIGATORS AG, AS						
CLIENT MVP PROJECT NAME MVP	Creek					
INVESTIGATORS AG, AS						
INVESTIGATORS AG, AS						
WATER TYPE TNW RPW NRPW Perennial Intermittent	Ephemeral 🔽					
Estimate Measurements Stream Erd Top of Bank Width: 4.0 ft ✓ None	osion Moderate Heavy					
_	Noderate					
	Modified or Channelized					
LB <u>3.0 in</u> RB <u>3.0 in</u> Yes	<u>✓</u> No					
CHANNEL FEATURES Water Depth: 0.00 in Dam Prese	entYesv No					
Water Width: 0.0 ft	✓ Low Medium High					
Ordinary High Wester Mark (Water)						
Ordinary High Water Mark (Height): in Gradient Flow Direction: Southwest Flat	Moderate ✓ Severe					
Flow Direction: Southwest Flat (0.5/100 ft	(2 ft/100 ft) (10 ft/100 ft)					
	of Reach Represented by Stream					
✓ No water, stream bed dry Morpholog Stream bed moist Riffle	y Types					
Stream bed moist Riffle Standing water Pool	% Null %					
FLOW — Flowing water — Flowing						
Turbidity	Slightly turbidTurbid					
Velocity Clear Opaqu						
Other_						
INORGANIC SUBSTRATE COMPONENTS (should add up to 100%) 100 (does not necessarily add up to 100%)						
Substrate Diameter % Composition in Substrate Chara	cteristic % Composition in Sampling Area					
Bedrock sticks	, wood, coarse					
Definitis	aterials (CPOM) 60					
Cobble 64-256 mm (2.5"-10") Music Mu	very fine organic					
Gravel 2-64 mm (0.1"-2.5") Muck-Mud	(FPOM)					
Sand 0.06-2mm (gritty) 50						
30	shell fragments					
Clay < 0.004 mm (slick)						
Predominant Surrounding Landuse Indicate th ✓ Forest Commercial ✓ Trees	e dominant type Shrubs					
Field/Pasture Industrial Grasse						
	\A/:					
Agricultural Residential	wiath					
WATERSHED — Othor: Floodplain	30ft — Moderate 15-30ft					
WATERSHED Floodplain FEATURES Other: Floodplain Wide >	30ft — Moderate 15-30ft					
WATERSHED FEATURES Other: Canopy Cover Open Partly shaded Westand Policy We	30ft — Moderate 15-30ft <16ft					
WATERSHED FEATURES Other: Canopy Cover Open Partly shaded Floodplain Wide > Narrow	30ft — Moderate 15-30ft <16ft resentYes _ ✓ No					
WATERSHED FEATURES — Other: Floodplain — Wide > Canopy Cover — Open — Partly shaded ✓ Shaded Wetland Provential Formula of the dominant specific specifi	30ft — Moderate 15-30ft <16ft resentYes _✓ No becies present					
WATERSHED FEATURES — Other: Floodplain — Wide > Canopy Cover — Open — Partly shaded Wetland Proceed — Shaded Wetland ID AQUATIC VEGETATION Rooted emergent — Rooted submergent	30ft — Moderate 15-30ft <16ft resentYes _✓ No becies present					
WATERSHED FEATURES — Other: Floodplain — Wide > Canopy Cover — Open — Partly shaded ✓ Shaded Wetland Provential Floodplain — Wide > ✓ Narrow Metland Provential Floodplain — Wetland Provential Floodplain — Partly shaded — Wetland ID Indicate the dominant type and record the dominant specific provential Floodplain — Wide > ✓ Narrow Metland Provential Floodplain — Wetland Provential Floodplain — Wide > ✓ Narrow Metland Provential Floodplain — Partly shaded — Wetland Provential Floodplain — Wide > ✓ Shaded — Partly shaded — Wetland Provential Floodplain — Partly shaded — Wetland Provential Floodplain — Wetland — Wetland Floodplain — Wetland	30ft — Moderate 15-30ft <16ft resentYes _✓ No becies present					
WATERSHED FEATURES — Other: Floodplain Wide >	30ft — Moderate 15-30ft <16ft resentYes _✓ No becies present					
WATERSHED FEATURES — Other: Floodplain — Wide > Canopy Cover — Open — Partly shaded Wetland Proceed — Shaded Wetland ID AQUATIC VEGETATION Rooted emergent — Rooted submergent	30ft — Moderate 15-30ft <16ft resentYes _✓ No becies present					
WATERSHED FEATURES — Other: Floodplain Wide >	30ft — Moderate 15-30ft <16ft resentYes _✓ No becies present					
WATERSHED FEATURES — Other: — Other: — Canopy Cover — Open — Partly shaded — Wetland Provided and the dominant type and record the dominant specified and the provided and the dominant specified and the domina	30ft — Moderate 15-30ft <16ft resentYes _✓ No becies present					
WATERSHED FEATURES — Other: — Other: — Canopy Cover — Open — Partly shaded — Wetland Provided and record the dominant specific plants algae — Rooted emergent — Rooted submergent — Floating algae — Attached algae Flows into SMM44 MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER	30ft — Moderate 15-30ft <16ft resentYes _✓ No becies present					
WATERSHED FEATURES — Other: — Other: — Canopy Cover — Open — Partly shaded — Wetland Provential Methods of the dominant specified algae — Rooted emergent — Floating algae — Attached algae Flows into SMM44 MACROINVERTEBRATES OR OTHER WILDLIFE	30ft — Moderate 15-30ft <16ft resentYes✓ No					



Photograph Direction ENE

STREAM ID S					Little Jacks Creek	
LAT 36.97875	2 LON	IG -79.68414	551 DATE 12/12	2/2015		
CLIENT MVP			PROJECT N	IAME MVP		
INVESTIGATO	ors ag, as					
TNW	RPW 🔽	NRPW [FLOW REG Perennial		ent Ephemeral	
		Fatimata N			Otazana Faradan	
			leasurements k Width: <u>7.0 ft</u>		Stream Erosion ✓ None Moderate	Heavv
		Top of Bank Height:				
		LB 9.0		in	Artificial, Modified or Char	nnelized
				<u></u>	Yes No	
CHANNEL FE	ATURES	· ·	th: 4.00 in		Dam PresentYes _	<u>∠</u> No
		Water Widt		h). 70 in	Sinuosity Low 🗸	Medium High
		,	igh Water Mark (Widt	,	·	riigir
		,	igh Water Mark (Heig	nt): <u>8.0 in</u>	Gradient Flat ✓ Moderate	Severe
		Flow Direct	ion: South		(0.5/100 ft (2 ft/100 ft)	(10 ft/100 ft)
		Water Pres	sent		Proportion of Reach Repre	esented by Stream
			r, stream bed dry		Morphology Types Riffle 100 % Run	%
		Stream Stream	oed moist n water		Pool %	70
FLOW CHARACTERI	STICS	Flowing	•			
OHARAGIER	OHARAOTERIOTIOO				Turbidity ✓ ClearSlightly turbidTurbid	
			✓ Moderate		OpaqueStained	
		Slow		Other		
			RGANIC SUBSTRATE COM does not necessarily add u			
Substrate	Diame	ter	% Composition in	Substrate	Characteristic	% Composition in
Туре			Sampling Reach	Туре	0.10.0010110	Sampling Area
Bedrock Boulder	- 256	mm (10")		Detritus	sticks, wood, coarse plant materials (CPOM)	5
Cobble		mm (10") m (2.5"-10")	5		, ,	
Gravel		n (0.1"-2.5")	20 30	Muck-Mud	black, very fine organic (FPOM)	
Sand		nm (gritty)	40		, ,	
Silt		0.06 mm	5	Marl	grey, shell fragments	
Clay	< 0.004 ı	mm (slick)				
		Predomina	ant Surrounding Lar	duse	Indicate the dominant type	
		<u>✓</u> Forest	Commer		<u>✓</u> TreesShrub	
		Field/PastureIndustrial Agricultural Residentia			Grasses Herba	ceous
WATERSHED		Other:	Residen	liai	Floodplain Width	45 000
FEATURES					Wide > 30ftMode ✓ Narrow <16ft	rate 15-30tt
		Canopy CoverOpenPartly shaded			Hallow Clott	
				Wetland PresentYes Wetland ID	<u>✓</u> No	
					dominant species present	
			Rooted emergentRooted submergentRooted floatingFree floating			
	Floating algae Attached algae					
		0				
		Crosses po	owerline			
MACROINVER	RTEBRATES					
OR OTHER WILDLIFE	(ILBITALE)					
OBSERVED/C						
OBSERVATIO NOTES	NS AND					



Photograph Direction East

STREAM ID S-H25	STREAM NAME Little Jacks Creek
LAT 36.978648 LONG -79.682054	DATE 04/03/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS A.Stott, A.Grech, H.Heist	
FLOW REGIME Perennial — Intermittent ✓ Ephemeral —	WATER TYPE TNW RPW ✓ NRPW

			leasurements		Stream Erosion	
		'	k Width: 7 ft		NoneModerate	Heavy
		Top of Bank Height:			Artificial, Modified or Chan	nelized
		LB <u>4.0 ft</u> RB <u>2.0 ft</u>			<u>✓</u> YesNo	
CHANNEL FEATURES		Water Depth: 6.00 in			Dam PresentYes	✓ No
		vvater vvidth: 4.0 ft			_ _	_
		High Water	Mark: <u>3.0 ft</u>		Sinuosity Low	Medium High
		Flow Direct	tion: Southeast		Gradient	
						Severe (10 ft/100 ft)
		Water Pres			Proportion of Reach Repre	sented by Stream
		No wate Stream I	r, stream bed dry		Morphology Types Riffle 50 % Run 10	%
		— Standing			Pool 40 %	,,
FLOW CHARACTER	ISTICS	Flowing	•			
					Turbidity Clear ✓ Slightly to	turbidTurbid
		Velocity Fast	✓ Moderate		Clear Slightly turbid Opaque Stained	
		Slow			Other	
INOR	GANIC SUB	STRATE CO	MPONENTS	0	RGANIC SUBSTRATE COM	IPONENTS
	(should	add up to 10	0%)	(0	does not necessarily add up	p to 100%)
Substrate Type	Diame	eter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock				Detritus	sticks, wood, coarse	
Boulder		mm (10")	5	Detritus	plant materials (CPOM)	40
Cobble	64-256 m	m (2.5"-10")	10	Muck-Mud	black, very fine organic	
Gravel	2-64 mm	າ (0.1"-2.5")	20		(FPOM)	
Sand		nm (gritty)	35			
Silt		0.06 mm	30	Marl	grey, shell fragments	
Clay	< 0.004	mm (slick)				
		Predomina ✓ Forest	ant Surrounding Lan Commer		Indicate the dominant type ✓ Trees ✓ Shrub	(Check one)
		_	astureIndustrial		<u>✓</u> Grasses <u>✓</u> Herba	
		Agricult			_	
WATERSHED FEATURES		✓ Other:			Floodplain Width Wide > 30ft Moderate 15-30ft	
PEATORES		00			✓ Narrow <16ft	ate 15-50it
		Canopy Co		aded		
		Shaded Open			Wetland PresentYes Wetland ID	<u>✓</u> No
					dominant species present	
AQUATIC VE	GETATION		-		ergentRooted float	ingFree floating
		Floating	g algae	Attached alga	e	

	Perennial
	Other: power line corridor
MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	Information listed on this form represents the data collected in 2015. The stream was revisited on 11/13/2019. The presence of a stream channel and OHWM was confirmed



Photograph Direction NNE

Comments: 2015 stream identification.



Photograph Direction NNE

Date: 11/13/2019